

WHAT IS CLAIMED IS:

1. A magnetic-tape recording apparatus for recording digital data on a magnetic tape by a rotating head, comprising:

first obtaining means for obtaining first-group data, including video data, audio data, or search data;

second obtaining means for obtaining second-group data, including sub-code data related to the first-group data;

synthesizing means for synthesizing the first-group data and the second-group data such that they are continuous without any space disposed therebetween, on each of two sub-tracks formed with a gap sandwiched therebetween on a track in the magnetic tape; and

sending means for sending data synthesized by the synthesizing means to the rotating head in order to record the data on the magnetic tape.

2. A magnetic-tape recording apparatus according to Claim 1, wherein the video data is high-quality video data compressed by an MP@HL or MP@H-14 method.

3. A magnetic-tape recording apparatus according to Claim 1, wherein the synthesizing means synthesizes information indicating the type of the video signal recorded

into the track such that the information indicating the type of the video signal is recorded before the first-group data in each sub-track.

4. A magnetic-tape recording method for a magnetic-tape recording apparatus for recording digital data on a magnetic tape by a rotating head, comprising:

a first obtaining step of obtaining first-group data, including video data, audio data, or search data;

a second obtaining step of obtaining second-group data, including sub-code data related to the first-group data;

a synthesizing step of synthesizing the first-group data and the second-group data such that they are continuous without any space disposed therebetween, on each of two sub-tracks formed with a gap sandwiched therebetween on a track in the magnetic tape; and

a sending step of sending data synthesized by a process in the synthesizing step to the rotating head in order to record the data on the magnetic tape.

5. A recording medium storing a computer-readable program for controlling a magnetic-tape recording apparatus which records digital data on a magnetic tape by a rotating head, the program comprising:

a first obtaining step of obtaining first-group data,

including video data, audio data, or search data;

a second obtaining step of obtaining second-group data, including sub-code data related to the first-group data;

a synthesizing step of synthesizing the first-group data and the second-group data such that they are continuous without any space disposed therebetween, on each of two sub-tracks formed with a gap sandwiched therebetween on a track in the magnetic tape; and

a sending step of sending data synthesized by a process in the synthesizing step to the rotating head in order to record the data on the magnetic tape.

6. A format of a magnetic tape into which digital data is recorded by a rotating head, wherein first-group data, including video data, audio data, or search data, and second-group data, including sub-code data related to the first-group data, are disposed such that they are continuous without any space disposed therebetween, on each of two sub-tracks formed with a gap sandwiched therebetween on a track in the magnetic tape.

7. A magnetic-tape recording apparatus for recording digital data on a magnetic tape by a rotating head, comprising:

first obtaining means for obtaining first-group data,

including video data, audio data, or search data;

second obtaining means for obtaining second-group data, including sub-code data related to the first-group data;

third obtaining means for obtaining third-group data, including audio data for after-recording;

synthesizing means for synthesizing the first-group data and the second-group data such that they are continuous without any space disposed therebetween and for synthesizing the third-group data so as to form a gap between the third-group data and the first-group data, on a track in the magnetic tape; and

sending means for sending data synthesized by the synthesizing means to the rotating head in order to record the data on the magnetic tape.

8. A magnetic-tape recording apparatus according to Claim 7, wherein the video data is high-quality video data compressed by an MP@HL or MP@H-14 method.

9. A magnetic-tape recording method for a magnetic-tape recording apparatus for recording digital data on a magnetic tape by a rotating head, comprising:

a first obtaining step of obtaining first-group data, including video data, audio data, or search data;

a second obtaining step of obtaining second-group data,

including sub-code data related to the first-group data;

a third obtaining step of obtaining third-group data, including audio data for after-recording;

a synthesizing step of synthesizing the first-group data and the second-group data such that they are continuous without any space disposed therebetween and of synthesizing the third-group data so as to form a gap between the third-group data and the first-group data, on a track in the magnetic tape; and

a sending step of sending data synthesized by a process in the synthesizing step to the rotating head in order to record the data on the magnetic tape.

10. A recording medium storing a computer-readable program for controlling a magnetic-tape recording apparatus which records digital data on a magnetic tape by a rotating head, the program comprising:

a first obtaining step of obtaining first-group data, including video data, audio data, or search data;

a second obtaining step of obtaining second-group data, including sub-code data related to the first-group data;

a third obtaining step of obtaining third-group data, including audio data for after-recording;

a synthesizing step of synthesizing the first-group data and the second-group data such that they are continuous

without any space disposed therebetween and of synthesizing the third-group data so as to form a gap between the third-group data and the first-group data, on a track in the magnetic tape; and

a sending step of sending data synthesized by a process in the synthesizing step to the rotating head in order to record the data on the magnetic tape.

11. A format of a magnetic tape into which digital data is recorded by a rotating head, wherein, on a track in the magnetic tape, first-group data, including video data, audio data, or search data, and second-group data, including sub-code data related to the first-group data, are recorded such that they are continuous without any space disposed therebetween, and third-group data, including audio data for after-recording, is recorded such that a gap is formed between the third-group data and the first-group data.